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**Amendments to the Claims**

1. (Currently amended) A method for ~~route selection~~ path optimization and modification in connection-oriented packet-switching network, said method comprising the steps of:
    - a) receiving a request for selecting an alternate communications path, said request containing information regarding the network resources used by a current communications path, said current communications path being in a non-failure state, and transmitting data packets;
    - b) supplementing the resources available in said network with said network resources used by said current communications path; ~~[[,]]~~ while and
    - c) computing ~~[[an]]~~ the alternate communications path.
  2. (Original) The method of claim 1, wherein said network resources include bandwidth, CPU, memory, links/nodes.
  3. (Original) The method of claim 2, wherein said alternate communications path uses a bandwidth, CPU and memory which are not greater than the bandwidth, CPU and memory used by said current communications path.
  4. (Original) The method of claim 2, wherein said alternate communications path uses a bandwidth, CPU and memory which are greater than the bandwidth, CPU and memory used by said current communications path.
  5. (Original) The method of claim 1, wherein said step of computing said alternate communications path includes using information from a network topology database.
  6. (Original) The method of claim 3 or 4, wherein said alternate path includes a link used by said current communications path.
  7. (Currently amended) A method for path optimization and modification ~~route selection~~ in connection-oriented packet-switching networks, said method comprising the steps of:
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- a) receiving a request for selecting an alternate communications path, said request containing information regarding network resources reservations used by ~~[[said]]~~ a current communications path, said current communications path being in a non-failure state, and transmitting data packets;
  - b) removing said network resources reservations used by said current communications path from a network topology database;
  - c) computing said alternate communications path based on information accessed from said network topology database; and
  - d) restoring said network topology database to reflect again said network resources reservations used by said current communications path.
8. (Original) The method of claim 7, wherein sub-steps (b) to (d) are performed as an atomic transaction.
9. (Original) The method of claim 7, wherein said network resources include bandwidth, CPU, memory, links/nodes.
10. (Original) The method of claim 9, wherein said alternate communications path uses a bandwidth, CPU and memory which are not greater than the bandwidth, CPU and memory used by said current communications path.
11. (Original) The method of claim 9, wherein said alternate communications path uses a bandwidth, CPU and memory which are greater than the bandwidth, CPU and memory used by said current communications path.
12. (Original) The method of claim 10 or 11, wherein said alternate path includes a link used by said current communications path.
13. (Currently amended) A route selector for path optimization and modification in connection-oriented packet-switching networks, said route selector comprising:  
means for receiving a route selection request, said request containing information regarding the network resources used by a current communications path, said current communications path being in a non-failure state and transmitting data packets;
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means for supplementing the resources available in said network with said network resources used by said current communications path; and  
means for computing said alternate communications path.

14. (Original) The route selector of claim 13, wherein said network resources include bandwidth, CPU, memory, links/nodes.
  15. (Original) The route selector of claim 14, wherein said alternate communications path uses a bandwidth, CPU and memory which are not greater than the bandwidth, CPU and memory used by said current communications path.
  16. (Original) The route selector of claim 14, wherein said alternate communications path uses a bandwidth, CPU and memory which are greater than the bandwidth, CPU and memory used by said current communications path.
  17. (Original) The route selector of claim 14 or 15, wherein said alternate path includes a link used by said current communications path.
  18. (Currently amended) A path optimizer and modifier route-selector for selecting an alternate communications path in connection-oriented packet-switching networks, said route selector comprising:  
means for receiving a route selection request, said request containing information regarding the network resources reservations used by a current communications path, said current communications path being in a non-failure state and transmitting data packets;  
means for removing said network resources reservations used by said current communications path from a network topology database;  
means for computing said alternate communications path based on information accessed from said network topology database; and  
means for restoring said network topology database to reflect again said network resources reservations used by said current communications path.
  19. (Original) The route selector of claim 18, wherein said network resources
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include bandwidth, CPU, memory, links/nodes.

20. (Original) The route selector of claim 18, wherein said alternate communications path uses a bandwidth, CPU and memory which are not greater than the bandwidth, CPU and memory used by said current communications path.
  21. (Original) The route selector of claim 19, wherein said alternate communications path uses a bandwidth, CPU and memory which are greater than the bandwidth, CPU and memory used by said current communications path.
  22. (Original) The route selector of claim 20 or 21, wherein said alternate path includes a link used by said original communications path.
  23. (Currently amended) A computer-readable medium containing computer executable instructions for performing path optimization and modification, comprising the steps of:
    - a) receiving a route selection request for finding an alternate communications path in connection-oriented packet-switching networks in which data packets are transmitted on a current communications path, said current communications path being in a non-failure state, said request containing information regarding the network resources reservations used by said current communications path; and
    - b) computing said alternate communications path after increasing the resources available in said network with said network resources reservations used by said current communications path.
  24. (Original) The computer-readable medium of claim 23, wherein step (b) includes the following sub-steps:
    - b1) removing said network resources reservations used by said current communications path from a network topology database;
    - b2) computing said alternate communications path based on information accessed from said network topology database; and
    - b3) restoring said network topology database to reflect again said network
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resources reservations used by said current communications path.

25. (Original) The computer-readable medium of claim 24, wherein said sub-steps (b1) to (b3) are performed as an atomic transaction.
  26. (Original) The computer-readable medium of claim 23, wherein said network resources include bandwidth, CPU, memory, links/nodes.
  27. (Original) The computer-readable medium of claim 26, wherein said alternate communications path uses a bandwidth, CPU and memory which are not greater than the bandwidth, CPU and memory used by said current communications path.
  28. (Original) The computer-readable medium of claim 26, wherein said alternate communications path uses a bandwidth, CPU and memory which are greater than the bandwidth, CPU and memory used by said current communications path.
  29. (Original) The computer-readable medium of claim 27 or 28, wherein said alternate path includes a link used by said current communications path.
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